This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-19 (canceled).

Claim 20 (previously presented): A method for processing a ceramic green sheet to form a plurality of through holes in the ceramic green sheet, comprising the steps of:

(a) disposing a laser source for emitting a pulsed laser beam, a diffraction grating for splitting the laser beam into a plurality of laser beam components in the vicinity of the laser source, a galvano-scan mirror that reflects the laser beam components at a reflection angle, a converging lens that individually converges the laser beam components reflected by the galvano-scan mirror, and the ceramic green sheet, in a predetermined positional relationship;

(b) splitting the pulsed laser beam emitted from the laser source through the diffraction grating into the plurality of laser beam components;

(c) reflecting the plurality of laser beam components with the galvano-scan mirror toward the ceramic green sheet such that a plurality of through holes is simultaneously formed at predetermined locations of the ceramic green sheet;

(d) varying the reflection angle of the galvano-scan mirror to repeat said step (c) until the through holes are formed in an entire region that can be processed by such a variation of the reflection angle in the ceramic green sheet;

(e) shifting the ceramic green sheet by a predetermined distance and repeating said steps (c) and (d); and

(f) repeating said step (e) until the through holes are formed at all predetermined locations of the ceramic green sheet.

Claim 21 (previously presented): The method according to Claim 20, wherein the diffraction grating comprises a material having a high laser beam transmittance.

Claim 22 (previously presented): The method according to Claim 20, wherein the laser beam is a CO_2 laser beam.

Claim 23 (previously presented): The method according to Claim 20, wherein the ceramic green sheet is provided with a carrier film on one surface thereof.

Claim 24 (previously presented): The method according to Claim 20, wherein each of the plurality of through holes has substantially the same shape and size.

Claim 25 (previously presented): A method for processing a ceramic green sheet, comprising:

(a) disposing a laser source for emitting a pulsed laser beam, a diffraction grating provided in the vicinity of the laser source for splitting the laser beam into a plurality of laser beam components that have energy suitable for forming fine holes having a diameter of about 50 μm or less on the ceramic green sheet, a galvano-scan mirror that reflects the laser beam components at a reflection angle, a converging lens that individually converges the laser beam components reflected by the galvano-scan mirror and the ceramic green sheet, in a predetermined positional relationship;

(b) splitting the pulsed laser beam emitted from the laser source through the diffraction grating into the plurality of laser beam components;

(c) reflecting the plurality of laser beam components with the galvano-scan mirror toward the ceramic green sheet such that a plurality of fine holes having a diameter of about 50 μm or less is simultaneously formed at predetermined locations of the ceramic green sheet;

(d) varying the reflection angle of the galvano-scan mirror to repeat said step (c) until the fine holes are formed in an entire region that can be processed by such a variation of the reflection angle in the ceramic green sheet;

(e) shifting the ceramic green sheet by a predetermined distance and repeating said steps (c) and (d); and

(f) repeating said step (e) until the fine holes having a diameter of 50 μm or less are formed at all predetermined locations of the ceramic green sheet.

Claim 26 (previously presented): The method according to Claim 25, wherein the diffraction grating comprises a material having a high laser beam transmittance.

Claim 27 (previously presented): The method according to Claim 25, wherein the laser beam is a CO_2 laser beam.

Claim 28 (previously presented): The method according to Claim 25, wherein the ceramic green sheet is provided with a carrier film on one surface thereof.

Claim 29 (previously presented): A method for processing a ceramic green sheet to form a plurality of through holes in the ceramic green sheet, comprising the steps of:

(a) disposing a laser source for emitting a pulsed laser beam, a diffraction grating for splitting the laser beam into a plurality of laser beam components in the vicinity of the laser source, a galvano-scan mirror that reflects the laser beam components at a reflection angle, a converging lens that individually converges the laser beam components reflected by the galvano-scan mirror, and the ceramic green sheet, in a predetermined positional relationship;

(b) splitting the pulsed laser beam emitted from the laser source through the diffraction grating into the plurality of laser beam components;

(c) reflecting the plurality of laser beam components by the galvano-scan mirror toward the ceramic green sheet so that a plurality of through holes is simultaneously formed at predetermined locations of the ceramic green sheet;

(d) varying the reflection angle of the galvano-scan mirror to repeat said step (c) until the through holes are formed in the entire region that can be processed by such a variation of the reflection angle in the ceramic green sheet;

(e) shifting the ceramic green sheet by a predetermined distance and repeating said steps (c) and (d); and

(f) repeating said step (e) until the through holes are formed at all predetermined locations of the ceramic green sheet;

wherein the ceramic green sheet is provided with a carrier film on one surface thereof;

wherein the plurality of laser beam components has an energy that allows each of the plurality of laser beam components to penetrate through the ceramic green sheet but not to penetrate through the carrier film.

Claim 30 (previously presented): The method according to Claim 29, wherein the diffraction grating comprises a material having a high laser beam transmittance.

Claim 31 (previously presented): The method according to Claim 29, wherein the laser beam is a CO_2 laser beam.

Claim 32 (previously presented): The method according to Claim 29, wherein each of the plurality of through holes has substantially the same shape and size.